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FILED ELECTRONICALLY

Ms. Marlene Dortch, Esq.
Secretary
Federal Communications Commission
445 12th St. SW
Washington DC 20554

Re: **EX PARTE** in Spectrum Needs of Emergency Response Providers, WT Docket No. 05-157

Dear Ms. Dortch:

On December 8, 2005, Dean Zanone of Cisco Systems and I met with Fred Campbell, wireless advisor to Chairman Kevin Martin, Bruce Franca, Chief Engineer, Tim Peterson of the Office of Engineering and Technology and Kenneth Moran of the Office of Homeland Security. The purpose of the meeting was to brief Commission staff on our new IP-based Interoperability and Collaboration System (IPICS) that enables interoperability of existing and future public safety radios, as well as other common voice communications platforms that it converts into push-to-talk radios.

The IPICS solution permits immediate interoperability of existing push-to-talk radio systems, even if those systems are on different frequencies and using different technologies. For legacy public safety systems, IPICS allows the incident commander to designate a specific channel on a specific system to interoperate with a specific channel on another system. For existing and future "Project 25" standards-based radios, IPICS enables incident commanders to address specific individuals on land mobile radio systems. Significantly, IPICS also enables devices such as cell phones (including push to talk-equipped cell phones), VoIP phones, satellite phones, and microphone-equipped laptops, to function as push to talk radios. Using IPICS, a first responder located anywhere in the world could be joined to the incident by using his or her personal cellphone, laptop or other device.

Incident commanders manage participants from a single screen, and may create a standard list of participants by type of incident, or create a list of participants on the fly, adding and dropping participants as needed. Participants may be given permission to talk, or may be in a listen-only mode. One of the side benefits of IPICS is that it pushes features down to legacy push-to-talk radios, such as the ability to “mute” the phone and the ability to replay a transmission which the listener did not hear, without having to ask the dispatcher to repeat himself or herself. In addition, the system allows users to designate a hierarchy of what device to contact, and it allows participants to record special skills that they might have (*e.g.*, “bomb squad”). This creates a searchable database for incident commanders to use. Multiple incidents can be managed from the IPICS system. The system is also flexible in that any current or future radio system can be added to IPICS. The system also has the capacity to deliver other types of resources to the incident commander such as video and data. For example, the Wisconsin Air National Guard requested that, for its IPICS application, Cisco include on the dispatch screen a map of the state so that dispatchers can see the location of incident participants. Future iterations of the product will incorporate instant messaging capabilities (text to voice) and GPS.

Because of the flexibility that IPICS affords incident commanders, resources from outside of public safety can be tapped to participate in an incident response. For example, an expert in bioterrorism could be added to an incident to provide expert advice and information to responders, and then dropped from the incident when the information is conveyed. Private networks could be added, as well, such as building managers or private security officials.

The IPICS solution is an immediate answer to the needs of the public safety community for interoperability of radio systems. Most importantly, it does not require designation of additional spectrum resource to achieve interoperability. Nor does it require expensive radio replacement. Users install a router, a server and IPICS software in a dispatch or command center to initiate the system. Routers act as a gateway between the analog radio systems and the IP system, and also can “mix” the radio traffic at the network edge for enhanced reliability. Cisco has estimated that an IPICS solution, when deployed by first responder agencies to solve interoperability issues, could cost a tenth of the estimated cost of radio replacement. However, Cisco does encourage public safety agencies to migrate to new radio technologies as soon as practicable.

IPICS is much more than an interoperability product. With its foundation in voice, IPICS can and will grow to include video and data, such as sensor data, RFID-based identification systems, building plans, and many, many other examples. Future voice platforms, such as future radio systems, can easily and inexpensively be added to existing systems. In Cisco’s view, IPICS is a ground-breaking departure from existing “gateway” interoperability solutions.

Respectfully submitted,

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Cc:
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Bruce Franca
Tim Peterson
Fred Campbell